

Bollington Urban District.



REPORT

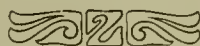
ON THE

Health of Bollington

FOR THE YEAR 1911.

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MEDICAL OFFICER OF HEALTH.



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Annual Report of the Medical Officer of Health For 1911.

*To the Chairman and Members of the Bollington Urban
District Council.*

MR. CHAIRMAN AND GENTLEMEN,

I have the honour to submit to you, for your consideration, my Annual Report on the health and Sanitary Administration of the District for the past year.

As you are aware, the District of Bollington comprises 1291 acres and is situate in a valley and on its adjacent hill sides. It lies on the Westerly edge of the East Cheshire range of hills which are on the fringe of the Southern extremity of the Penine Chain. It is distant about $3\frac{1}{2}$ miles from the town of Macclesfield, in a North-Easterly direction. From its position it will be seen that it is subject to much rain and cold winds.

The character of the soil and sub-soil varies greatly. Generally speaking it is sandstone and clay with some coal measures.

It is in the part lying in the valley that the population is densest.

The figures of the Census taken during the year are those upon which the vital statistics are based.

OCCUPATION OF THE INHABITANTS.—There are, in the village, three mills belonging to the Fine Cotton Spinning & Doubling Association, whilst another mill—that at Lower House—is also a Cotton mill, being engaged in Calico weaving.

Besides these 4 mills there are also Calico printing works and Paper staining works. Just without the boundary is a Cotton bleaching works. All these works find a large amount of indoor employment for the inhabitants of the district. Outdoor employment is to be had at the various stone quarries scattered within and about the district. A proportion of the inhabitants, too, work at the coal and fire-clay works at Pott Shrigley, a little way off.

Diseases of the Chest and the various forms of Rheumatism and Arthritis are perhaps the most common ailments to which the inhabitants are liable.

The Census shews that there are 1212 inhabited houses—which gives on an average 4·3 persons to a house.

The houses are for the most part built of stone, or stone and rubble, and with the exception of the newer ones which are built of stone—or brick with stone frontage—have no damp-proof courses. In this way a number of the houses are apt to be damp. This in some cases is made worse by the fact that one or other of the walls is below the ground level. These cases are being taken in hand by your Committee, and it is being insisted on that the level of the earth outside be cut down so that a free play of air may get to their walls.

The air space at the back of the houses is, generally speaking, satisfactory. Here and there, however, it is too confined, the back area consisting only of a passage.

By far, the larger number of houses consist of only 2 rooms up and 2 down, and in such cases the sleeping accommodation cannot be considered satisfactory for any but small families. The newer houses however are better and have three bedrooms and sometimes a bathroom.

All plans for new houses or buildings are required to be submitted in duplicate to the Council. They are considered by the Surveyor, who reports as to whether they conform to the bye-laws in force, before being passed by the Council. If they fail to do this they are returned to be made to do so.

At the present time there seems to be a scarcity of houses and a demand for new ones. The difficulty seems to be to get new ones put up at a figure which would give the builder a reasonable return for his outlay. One combined house and shop has been erected during the year.

The population of the District, as shown by the figures of the Census is 5225.

The number of births occurring within the district during the year was 103. Of these 48 were males and 55 were females. To these figures 1 other birth is added by the returns sent from the Registrar General. This birth was that of a child of a resident of Bollington which was born outside the confines of the district. The corrected number of births is therefore 104, and the birth rate is one of 19·9 per 1,000 of the population.

The average birth rate of the preceding 5 years was one of 21·7 per 1,000 of the estimated population.

Nine of the births were those of illegitimate children. Thus 86·5 per 1,000 births registered represents the illegitimate birth rate.

The number of deaths registered as occurring within the district was 62. The death rate worked out on this figure is one of 11·8 per 1000 of the population. The average death rate for the previous 5 years was one of 11 per 1,000 of the estimated population.

The total, 62, however, is the number of persons who died actually within the district. It includes the deaths of 2 persons who were not residents of the district and does not take into account those of 8 residents who died whilst away from the district. Deducting the former and adding the latter, one arrives at the correct number which is thus 68, giving a total corrected death rate of 13 per 1,000 of the population.

The average corrected death rate of the preceding 5 years was one of 11·7 per 1,000 of the estimated population.

Sixteen of the deaths were those of children who did not survive the first twelve months of life. Thus the infantile death rate calculated per 1,000 nett births is thus one of 155. The average number of of these young infants dying per year during the preceding 5 years was 9, which worked out on the same basis, viz: per 1,000 nett births, gives a mortality rate of 77.

From the above it will be seen that the figures for the past year are practically double those of the previous 5 years' average. Such a difference requires serious thought and consideration, for with a falling birth rate—25 per 1,000 in 1906, only 20 per 1,000 in 1911—it is a matter of the utmost importance to conserve, in every way, the infant life of the community.

On going carefully through the returns of the Registrar one finds that of the 16 infantile deaths 7 occurred within the period covered between January 12th and February 24th, and 7 between the dates of July 4th and October 18th. That is to say of the total all but 2 occurred during two definite periods, and 14 were equally divided between these two periods.

These two periods were those of the extremes of cold and heat during the past year. Further on examining into the causes to which the deaths were attributed one finds that of the 7 dying during the first or cold period

- 2 were due to Broncho Pneumonia,
- 3 " " Premature birth and Congenital troubles,
- 1 was due to Malnutrition, and
- 1 " " Convulsions.

One would perhaps expect that at a time of the year when chest complaints are rife, to find one or two infantile deaths due to one of these complaints. Further, the resisting power of 4 of the others—due to premature birth and malnutrition—is naturally lowered, and unable to stand the extra strain caused by damp and cold weather.

Turning now to the second period, that coming between July and the middle of October, it will be well remembered that this season last year was of intense heat and continued drought—very little rain fell in this district during the whole of the time. Under such conditions perishable food, both animal and vegetable, soon goes bad and speedily becomes unfit for consumption. Probably of all foods, milk, which is the main food of the infant, becomes soured and unfit for use more quickly than any other. The presence of putrefying matter in or about the house is a fresh source of contamination to milk or other food which may be sound. Flies feed and rapidly multiply in the decayed substances and soon convey the organism of putrefaction to that which is good. In this way milk is quickly turned, and thus the child's food is made not only unfit for use but actually harmful to the child.

At such times one would expect to find an outbreak of intestinal troubles, such as Enteritis, Diarrhœa, &c, and especially prevailing amongst the infant population. This is exactly what did happen last summer. There was a high sickness rate of diarrhœa. The following are extracts from the death certificates issued then :—

July	...	15 days old	...	Gastro Enteritis.
August	...	2 months old	...	Infectious Enteritis.
"	..	6 "	...	Diarrhœa.
September		6 weeks old	..	Premature birth.
"		18 days old	...	Gastro Enteritis.
October	...	51 "	...	Inanition.
"	...	1 month old	..	Gastro Enteritis.

That is to say that 5 out of the 7 infantile deaths which occurred during this period were directly attributed to Enteritis or Diarrhœa.

The two remaining cases had also suffered from the complaint.

Premature birth accounted for 3 of the total 16 deaths amongst infants.

What can be done in the way of preventing the wastage of valuable infantile life? The Seasons and their climatic variations cannot be affected, but it is imperative that every endeavour should be used to influence their effects on the mother and the child especially, where possible through their environment

So far as is possible every thing which tends to the premature birth of the child should be prevented. No expectant mother should be allowed to continue at work in the mill right up to time of her confinement. It is pleasing to be able to report that the managers and heads of the various mills in the neighbourhood sympathise with this and, so far as they have knowledge of such cases, do not allow it, nor are mothers permitted to return to their work for at least one month after the birth of the child. The suggestion of your Committee to this effect, made some years ago to the mill authorities, has been loyally carried out.

As to the case of the child after birth, the midwives give every help possible in the way of advice as to clothing and feeding. At every house where they have been in attendance, they leave cards with instructions as to feeding, clothing and the general care of the infant. The use of the boat-shaped bottle and the ill effects of the old-fashioned tube bottle are strongly impressed on them others. In this respect one is glad to note that there is a change slowly coming over the people, but unfortunately the old-shaped bottle still holds its sway in the great majority of cases. It is quite impossible to thoroughly cleanse these bottles and their indiarubber tubes. No matter how much one is told that the brush is passed through the tube, they always smell sour after use. The only result is that the fresh supply of milk is contaminated before the child takes it. This tube and the "dummy" are the causes of a great deal of infantile suffering, to say the very least of it.

How frequently one sees a "dummy" picked up off a floor—not always passably clean—and put straight away, or via the sugar bowl, into the child's mouth. One cannot imagine the mothers taking anything off the floor and putting it in their own mouths, then why should they give such an uncleanly thing to their baby to suck?

So much the employers and the midwives do—what further can be done by the sanitary authority? Theirs is the duty to see that the environment of the home is made as healthy as possible. Your Committee has, during the past year, rigorously insisted that all windows should be made to open, thus securing the possibility of better ventilation. Furthermore, a large number of water-closets have been substituted for the old-fashioned privy middens. Unfortunately a large number of these still abound and, where they do, in a season like the past, with long continued, hot, dry weather, the danger is greatly increased. One can only continue to urge on the conversion of this system to the newer and better water-carriage system, until the time will come when the whole district is supplied with the water-closet and dry ashpit. For this, a pretty round supply of water will be required.

WATER SUPPLY.—The water supplying the district is taken from two boreholes in the neighbouring Parish of Rainow, situated at Lowerhouse and Dane Bent. These are situated at altitudes of 794 feet and 750·75 feet respectively.

Taking into consideration the character of the past summer and early autumn, unequalled for a great many years for its long continued drought, the supply has carried the district through very well. That some inconvenience was caused by the diminished amount of water available there is no doubt, but fortunately nothing more than this occurred.

The shortage began to make itself felt about the middle of July. From this date the water supply was cut off between the hours of 11 p.m. and 5 a.m. Later on, in the middle of August, it was found necessary to still further curtail the hours of service, viz : from 7 p.m. to 6 a.m., and this curtailment was continued until the latter part of October.

Early in August, the drought still continuing and the supply yielded by the boreholes diminishing, it was deemed advisable to assist matters by the aid of a pump. Fortunately, one was found close at hand, Messrs Hammonds of Pott Shrigley having one not then in use, they agreed to hire it to the Council. It was fixed at the Dane Bent borehole on August 12th.

The effect of this was immediate and satisfactory. The pump was in use each day and increased the supply by 27,000 to 28,000 gallons a day.

The supply, though very much curtailed, especially during the latter part of the period, causing in this way some general inconvenience, was better perhaps than was to be expected.

That the test was a severe one and that it proves that the supply is not a sufficient one for a prolonged dry season there can be no doubt. Further, it must not be forgotten that the demand is increasing each month. Water closets are being put in in increasing numbers, as quickly as it is possible, to do away with the privy middens which were general up to a few years ago. This sanitary improvement alone makes a large demand for more water. It is thus quite impossible to allow the present supply to remain stationary for much longer. Further means of increasing the amount from the existing boreholes or new sources of supply must be found. Attention has been directed to this most important matter in previous Annual Reports of your Medical Officer of Health.

It is up to the Water Committee to see that something is done and done soon.

With the exception of the dates before-mentioned the supply has, of course, been constant.

Certain areas, viz : those in Long Lane and at the Windmill, Ker-ridge, are not supplied by the town's water. These have been found to be situated too high up and too isolated to arrange for up to the present. These two areas will account for about 17 houses in all.

Four other houses—situated in Clarke Lane—are also too isolated for the supply to reach them. All these houses are dependent on wells for their water. The matter of these houses is at present under the consideration of your Committee.

QUALITY OF THE WATER.—Samples of the water were taken from both boreholes on the 4th and 29th of March last, and were sent straight away to Messrs. Grace, Calvert & Thomson for examination, who report as follows :—

Royal Institution Laboratory,
Manchester,
8th April, 1911.

The Bollington Urban District Council,
Bollington, Nr. Macclesfield.

Gentlemen.—We have submitted to careful analysis the two samples of water marked :—

“Lowerhouse Water Supply, Bollington Urban District Council”
and

“Dane Bent Water Supply, Bollington Urban District Council”
which you sent to our Laboratory on the 4th ult., and beg to lay before you our report thereon as follows :—

They contain :—

					Grains per gallon.	
					Water Supply.	Water Supply.
					Lower House	Dane Bent
Solid Matter in Suspension ...					Trace.	Trace.
Total Solid Matter in Solution ...					7·193	17·640
Consisting of :—						
Organic Matter, Combined Water,						
Etc.					1·068	1·540
Saline Matter					6·125	16·100
Combined Chlorine					0·875	0·945
Free Ammonia					0·0056	0·0078
Albuminoid Ammonia					0·0047	0·0047
Oxygen contained in Potassium Perman-						
ganate required to oxidise Organic						
Matters, etc., in solution :—						
Acting at 80 degrees Fah. during						
15 minutes					0·0133	0·0056
Acting at 80 degrees Fah. during						
4 hours					0·0286	0·0140
					Degrees.	
Temporary Hardness					1·40	4·66
Permanent „					1·93	None
Total „					3·33	4·66
Nitrates and Nitrites					Heavy trace.	Medium trace.
Phosphates					Small „	„ „
Free Acid					Absent.	Absent.
Heavy Metals					„	„
Iron in Solution					„	„
Sodium Carbonate					None.	8·83

Appearance in 2-ft. tube ...	... Clear pale green.	Clear pale green
Microscopical Examination ...	... No animalcule.	Paramecium
	or Fungoid life.	Rotifer
		Actinophrys
		Vorticella
		present.

BACTERIOLOGICAL EXAMINATION.

About noon on Wednesday, March 29th, special samples of these two waters were collected by your Medical Officer, Dr. D. W. Main, in Sterile bottles supplied by ourselves, and were brought to the Laboratory packed in ice. The Bacteriological examination of these was commenced the same afternoon, and we beg to lay before you the results of the same.

	Lower House supply.	Dane Bent supply
Number of Bacteria:—		
Colonies per 1 Cubic Centimeter of Sample on Nutrient Gelatine of reaction plus 10 (Eyres scale) incubated at 18-22 degrees F. for 6 days	15	3

A culture of Manchester water as delivered at our Laboratory made side by side with the samples give 35 colonies per 1 c.c.

Examination for Bacillus Coli:—

Three quantities of 25 cubic centimetres each	
Two " " 10 " " "	
Two " " 5 " " "	
Two " " 2 " " "	

were taken from each water and mixed with McConkey's Taurocholate-Glucose-Peptone-Litmus Solution of appropriate strengths in culture tubes containing small inverted tubes filled with the culture solution, and were incubated at 37 degrees Cent. for 3 days.

No production of acid and gas was observed in any of these cultures. Bacillus Coli is thus absent from the quantities of the samples used which amount to a total of 109 c.c. of each sample.

The above figures shew that the "Dane Bent Water Supply" contains about two and a half times more solid matter in solution than the "Lower House Water Supply" yet there is not much difference between them as regards degrees of hardness, the former being about $1\frac{1}{2}$ degrees harder. The hardness in the "Dane Bent Water Supply" is entirely "Temporary" *i.e.*, it is due to presence of Calcium and Magnesium Carbonates whilst in the "Lower House Water Supply" about 2 out of $3\frac{1}{2}$ degrees is due to Sulphate of Lime and other similar Salts.

It is remarkable that the "Dane Bent Water Supply" contains Sodium Carbonate which is seldom found in drinking water. It is present to the extent of about half of all the total solid matter it contains.

This substance has evidently been in still greater quantity and has decomposed all the Calcium Sulphate and similar salts which might have been present originally in the water, thus removing all the permanent hardness from it. If the two waters were mixed together we should expect to find that all the permanent hardness of the "Lower House Water Supply" would be removed, and that a softer water than either of the two, taken separately, would result.

Both samples, however, may be regarded as soft waters approximately in softness to the Manchester Water Supply, and they may be regarded as well adapted for washing purposes.

Both samples have received a small amount of contamination with Organic Matters, but this is chiefly of vegetable origin.

The Bacteriological examination bears out the results given by the figures of the analysis, and they indicate that there are a very few bacilli of any kind present. The "Dane Bent Water Supply" being quite remarkable in this respect, whilst the "Lower House Water Supply" although containing 5 times as many organisms (which developed on Nutrient Gelatine) as the "Dane Bent Water Supply" yet contains less than half the number present in Manchester water taken from the Laboratory tap.

Both samples may be regarded as free from *Bacillus Coli*, and consequently as being free from Sewage pollution, and both are satisfactory for drinking purposes.

We remain,

Your obedient servants,

CRACE, CALVERT & THOMSON.

This report is highly satisfactory both as to purity for drinking purposes and as to softness for other usage.

SEWAGE.—The District is well drained and the Main Sewers and Drains have been in good order throughout the year. Certain portions of the district, viz : those situated in the highest and most isolated parts, are without drains.

The settling tanks and filter beds—coarse and fine—situated below Lowerhouses, have been in good working order.

There are still a great number of premises served with privy middens. These, at best, are a nuisance, and should be done away with. Where they exist they should be emptied more frequently than has been the case previously. There have been complaints of their being allowed to remain too long unemptied during the past 12 months. Your Committee has gone very carefully into this matter and, in order to make one official responsible for this and answerable for any delay, has decided to do away with the position of Assistant Nuisance Inspector, and to require the Nuisance Inspector himself to take full charge of the matter. It is hoped that by this means there will be less friction and that complaints of this nature will be put an end to.

It is, unfortunately, necessary to point out that waste vegetable matter, such as potato peelings, cabbage leaves, &c., should be burned and not thrown into the privy midden. The scavengers have instructions to report in cases where such material is found in the middens.

CLOSET ACCOMMODATION.—438 houses are now supplied with Water-closets the remainder, 774, having still the privy midden system.

HOUSE REFUSE is removed at regular intervals by the Council's men, on an average about once in two or three weeks

POLLUTION OF RIVERS.—The prolonged period of heat and drought of last summer caused a recrudescence of the complaints which formerly were so common as to the foul smells arising from the river

course. The wetness of previous summers had allayed the complaints but during the past year they have been as strong and frequent as they were some years ago.

Conditions now, however, are very different. Since that time the district has been well sewered and drained, so that no longer is it possible to lay the trouble to the need of a proper drainage system. Sewage, in the usual sense of the term, no longer finds its way into the river to any, but perhaps a very slight extent.

From the complaints it was noticed, that at certain intervals, frequently in the early night, the smells arising have intensified and lasted for a short period of time during which it was a very uncomfortable experience to be anywhere near the river side.

A determined effort was made to try to get to the bottom of the trouble and a special inspection along the course of the stream was made by your Medical Officer of Health together with the Nuisance Inspector. As a result of this inspection, a report was drawn up by your Nuisance Inspector and submitted to the Council. Copies of this special report were sent to the Local Government Board, the Council, and the Mersey and Irwell Commissioners.

It was found, 1st.—That the course of the stream was by no means clear, that it was obstructed in its bed by large blocks of loose stone and rubble. 2nd.—That waste matter and refuse is constantly being thrown into the stream by the occupants of adjoining property. This waste matter was frequently vegetable refuse, there was also some decaying meat. Numbers of old canned meat and other tins were found. Pieces of linoleum and other worn out household goods were to be seen. These various articles sometimes themselves blocked the flow of the stream, at other times they were caught by the loose blocks of stone lying in the bed. In either case they were the centre of small areas of putrefaction which lay baking in the sun. 3rd.—The filter bed at the Lower Mill did not appear to be as efficient as it ought to have been. 4th.—The filter bed at the Brewery was out of use, and from its appearance it must have been so for some considerable time. In the yard there where the barrels are washed there is a pit into which the washing of the barrels find their way. This pit, owing to the failure of the system for its emptying, then in use, was in a very bad condition. 5th.—The system of settling tanks and filtration of the water polluted by the effluent from the Bleach Works higher up stream was evidently not working in a continuous and satisfactory manner. 6th.—Both Mill pools—that below the Bleach Works and the other below the Brewery—appeared to be in need of a thorough cleansing.

Your Committee in considering this report, agreed with the Nuisance Inspector as to the advisability of cleansing the bed of the stream of all removable obstruction so far as they are able, they further agreed to have notices put up, warning persons against throwing waste material into the stream.

Occupants of houses on the river side would do well to remember that it is hardly fair to complain about the Council's attitude on the matter, when they themselves are, to some extent, even if only slight, the cause of the trouble. There are not a few who perforce live on the river side who are careful in this matter, and one would not imply that all are guilty in this respect.

It was further suggested by your Committee that the Mersey and Irwell Commissioners be asked to give this matter their serious attention. This was done and the river was again inspected by their inspector. The chief result of this visit was that a new pump was put in at the Brewery, so that the contents of the pit there should be carried on to the filter beds in a more efficient manner.

MILK SUPPLY.—Milk is sold in the district by farmers whose farms are situated some within, and some without its boundaries.

The Dairies and Cowsheds of those within the district have been inspected regularly and found to comply with the byelaws of the Council. They are kept in clean condition and whitewashed twice a year. Some of Shippons would be the better for more air space, but so long as the cows are turned out some part of each day, the owners are within the letter of the byelaws. More definite regulations as to the cubic feet of air space to be allowed for each cow would appear to be advisable for the keeping of cattle in the best condition of health.

As to the farmers situate beyond the boundaries, and over which the District Council has no control, it would seem that no regular inspection is made. Power to inspect these by the Medical Officer of Health or Sanitary Inspector of the district which they supply with milk should be compulsory. Indeed, it would seem to be only fair to the farmers of the district itself.

Your Medical Officer of Health is not aware that any sample of milk being sold in the village has been taken for the purposes of examination during the year.

The Urban District Council is not the authority for doing this.

INSPECTION OF FOOD.—The Registered Slaughter Houses have been visited and inspected on each day that killing has been done during the year. Your Sanitary Inspector has not found any sign of Tuberculous Meat during the course of these inspections, neither has

any been found exposed for sale. The Nuisance Inspector also reports that he has not found any food in an unwholesome state exposed for sale in any of the shops of the purveyors of food. The premises of the shops he stated were found to be clean, and the sanitary arrangements in connection with them satisfactory.

SCHOOLS.—These are the following Public Elementary Schools situate within the Councils area:—

St. John's—Church, Mixed.

„ Infants, „

Water Street—Mixed and Infants, lately Wesleyan, in process of being acquired by the County Council.

Bollington Cross—Church, Mixed and Infants.

Kerridge Wesleyan—Mixed, Juniors only.

St. Gregory's—Roman Catholic, Mixed.

These have all been visited by your Medical Officer of Health and found to be kept clean. They obtain their water from the town's supply.

The Church Schools and the Roman Catholic School have the water carriage system in connection with their buildings.

Water Street Wesleyan is at present in a transitional stage. Alterations are being projected by the County Council. The negotiations in the matter appear to be somewhat protracted. It will be a matter for congratulation when these are finished and the alterations commenced. This School is situated in a thickly populated neighbourhood, having the stream which has been the cause of so many complaints during the past season, running closely behind it. A better site for a school might have been obtained.

An epidemic of measles occurred during the autumn.

The first School to be effected was the Church of England School at Bollington Cross. It was found necessary to close this School on this account. The period of closure lasted from September 20th, to November 6th.

The next school to be affected was the Water Street Infants. This School was very badly hit and was in consequence closed from October 13th, to November 20th. The mixed School which is held in the same building was only very slightly affected but was closed by Dr. Young, from October 23rd to November 6th.

St. John's mixed School was closed on the same account by Dr. Young from October 20th to November 3rd, and later for the same reason by your Medical Officer of Health, from November 22nd to December 4th. St. John's Infants was likewise closed by Dr. Young

from October 24th to Nov. 6th, and on re-opening was closed by your Medical Officer of Health to December 4th. St. Gregory's Roman Catholic was closed by order of Dr. Young, from October 23rd to November 3rd, and again by your Medical Officer of Health from November 7th to November 17th.

The School Medical Officer for these Schools is the County Medical Officer of Health, and they are visited for examination of children purposes by Dr. Lawrence, his assistant.

OFFENSIVE TRADES.—There are no offensive trades carried on within the district.

HOUSES LET IN LODGINGS.—None.

UNDERGROUND DWELLING.—None.

INFECTIOUS DISEASES.—The chief item of importance in this respect is that a very severe outbreak of Measles occurred during the autumn which necessitated the closing of the Schools, save that at Kerridge, for a time. The arrangements for treating such diseases as Scarlet Fever, Diphtheria, and Enteric Fever at the Macclesfield Isolation Hospital are as in previous years, 4 beds are reserved for the reception of cases of these diseases by the Macclesfield Corporation. A further 2 are reserved by the same authority for treating any cases of small-pox which may occur.

Two cases of Scarlet Fever occurring during the year were treated at their own homes by the method of inunction of Eucalyptus oil all over the body surface. Their throats were also swabbed out with Carbolic Oil. Both cases did very well, and although there were other children in both houses no case of infection from either of them was to be traced.

One case of Diphtheria was notified. Swabs were taken from the throat of the patient and sent up to the Lister Institution for examination. The result was positive. This case ended fatally. The patient came from a district on the borders of Derbyshire where Diphtheria was prevalent at the time.

Another suspected case was sent into the Macclesfield Isolation Hospital to be treated. Swabs were sent in this case also to the Lister Institute. The result however was negative. The account for this case from the Macclesfield Corporation amounted to £1 17s. 6d.

One case only of Tuberculosis was reported during the year. This was the case of a patient attending at the Manchester Hospital for Consumption. Full instructions as to his mode of life and the methods to be used for the prevention of the spread of the disease had been given him by the Hospital Authorities.

On being aware of any case of Phthisis in a house, enquiries as to the state of health of the other members of the household are made and advice given as to the free supply of fresh air in the home.

No promise has, up to the present time, been made for the reception and treatment of Tuberculosis by the Sanitary Authority.

Two cases in the past, who have been able to afford the expenses, have been treated at Delamere.

A Special Committee was formed to go into the question of building houses under the Housing and Town Planning Act.

This Committee met several times and, amongst other things, procured plans of houses likely to be suitable to the neighbourhood. These they obtained from other authorities and persons who had erected such buildings. The question of cost has been seriously considered in order to see if the Committee could recommend the Council to put up such houses. It was mentioned, *inter alia*, that the Council's building byelaws are too stringent, and in fact prohibitive. On this it was decided to go into the matter of the byelaws and consider them alongside the byelaws of such districts where suitable houses have already been erected in order to see if any alterations could be made by which it would be possible to erect some houses for the class of people who would need them, and who cannot afford to pay rent higher than those at present current in the district. To build under the present byelaws seemed to the Committee to be a matter of impossibility except at a loss. This matter was, at the close of the year, still under consideration by the Sub-Committee.

SANITARY INSPECTION.—The district has been well inspected during the year. The number of houses visited was 770. The Nuisance Inspector has gone carefully into each of these houses and where serious defects, such as overcrowding, back to back houses, houses with earth reaching above the level of the ground floor, or damp houses, have been found by him to exist, a further visit has been made by him in company with your Medical Officer of Health.

Further, in accordance with a resolution passed some years ago by the Council, your Medical Officer of Health has visited each house where a death of an infant under 12 months old has recently occurred.

After notice to remedy defects have been served, the premises are again visited to ascertain if the necessary work has been carried out. In this way 1160 inspections of house property have been made.

Fifteen houses have been found to be so built that the earth at least on one side is at a higher level than the ground floor of the house. There is no doubt that where such a condition exists, the rooms on that side of the house are of necessity damp. These have been found in several cases difficult to deal with. Two only had been remedied by the end of the year. The remainder are having the attention of the Health Committee directed to them.

BACK TO BACK HOUSES—The greater number of these are not in the strict sense of the word back to back—that is under the one roof—of such there are only two. The other are really old houses where a part only of the back of one is built against a part of the back of another, each being practically a separate building with a roof and all the other walls to itself. In some of these houses it is found that the gutter formed by the two roofs has been the cause of some dampness in the upper rooms.

INSUFFICIENT VENTILATION is most generally due to the fact that many of the windows, in old houses, have not been made to open.

INSUFFICIENT WATER SUPPLY.—Houses not supplied by the town's water are dealt with under this heading.

A copy of the card used by the Nuisance Inspector in his work of House to House Inspection is here shewn.

RECORD OF INSPECTION OF DWELLING HOUSES.

No.....	Street	Ward.....
Date of 1st Inspection.....	Owner.....	Name or No.
Description of Premises	Address	Occupier
Detached, semi-d., in row	Agent	
Rental	Open Space	
Surrounding.....		
Lighting.....		
Back to back.....	Back to earth	
Walls.....	Roof	
Outbuildings.....	Condition.....	
Rooms—No. of living	Sleeping	No. of occupants—over 10 M.....F.....
		Under 10 M.....F.....
		Total.....
Lighting.....	Ventilation.....	Through Ventilation.....
Windows	Made to open half-way.....	
Walls.....	Ceilings	
Floors—Ground	Upper	
Rooms contrary to Sub. sec. (7) Section 17 H. & T. P. Act, 1909.....		
Cleanliness	Dampness.....	
Water Supply Source.....	Laid on to house	Distance from house
Storage Cistern Situation.....	Kind	
Sources of contamination	No. of houses using same water, if other than public supply.....	
Closet accommodation—kind	No.....	No. of houses using same
Situation in house	Outside house	Distance from house
Means of flushing	Discharging to	
Drainage of slops to	Ventilation of drains.....	Slops drains direct or over gully.....
Cesspool—situation.....	Distance from house.....	Any overflow.....
		Ventilation.....
House Refuse—arrangements for deposit	Distance from house.....	well.....
Receptacle fixed	Movable.....	Covered or not.....
Keeping of Animals.....		
Any other defects.....		
Other observations		
Inspection made by		

Subsequent Inspections—

Date	Particulars	Initials
NOTICES, REPORTS, DIRECTIONS, AND RESULTS.		
Defects		
Reported to Health Committee	by whom	
Reference		
Action decided on		
Action taken—		
Under Public Health Acts (Sect. and particulars)		
Reference to Nuisance Card		
Under Housing Acts—		
Notices Served.		
Date	On whom served	Nature of Notice
		Result
Any further action which should be taken in respect of this dwelling house		

Appended also will be found Tabular Statistics by the Nuisance Inspector on the work during the year.

Local Acts and General Adoptive Acts in force in the District are:—

The Private Street Act, 1892 ; the Infectious Disease (Prevention) Act 1890, with the exceptions of sections 6, 8, 9, 10, and 12 ; and Part III of the Public Health Acts (Amendment) Act 1890, were adopted by the Council on the 13th July, 1899 and came into force in the district on the 1st September of that year.

The Local Government Board by an Order dated the 14th June, 1909

Declared—

Sections 15, 16, 17, 18, 19, 20, 22, 23, 24, 25, 26, 27, 30, 31, 32 and 33 comprised in Part II ;

Sections 34, 35, 36, 37, 38, 43, 44, 45, 46, 47, 49, 50 and 51 comprised in Part III.

Sections 52, 53, 54, 55, 56, 57, 58, 59, 60, 62, 63, 64, 67 and 68 comprised in Part IV.

Part VI ; and

Section 95 comprised in Part X

of the Public Health Acts (Amendment) Act 1907, to be in force in the Council's District on and after the 26th day of July 1909.

No action has been taken under these Acts during the year.

I have the honour to be, Gentlemen,

Your obedient Servant,

D. W. MAIN,

Medical Officer of Health.

NUISANCE INSPECTOR'S REPORT FOR 1911.

To the Chairman and Members of the Bollington Urban District Council.

GENTLEMEN,

I beg to submit my report for the year 1911.

REMOVAL OF NIGHTSOIL AND HOUSE REFUSE.

Year.	Amount.		Cost of Carting.		Cost of Labour in Emptying		House Refuse. No of Loads	No of Houses with W.C's.
	Tons	cwts. qrs.	£	s. d.	£	s. d.		
1902	1373	4 0	85	15 3	Paid by Owners 64 0 0 58 3 0 52 0 0 54 14 0 56 13 4 52 18 10 46 19 2 41 10 1 41 7 0		144	55
1903	1638	0 0	102	6 1			144	103
1904	1613	4 0	100	14 5			144	121
1905	1429	13 0	89	5 10			160	144
1906	1661	10 0	103	18 8			164	158
1907	1591	2 2	99	7 7			166	200
1908	1454	5 0	90	16 4			170	241
1909	1219	6 2	101	12 2			216	304
1910	1087	12 3	90	11 3			280	366
1911	1000	4 1	83	6 7			312	432

NO. OF INSPECTIONS DURING THE YEAR 1911.

In connection with nightsoil removal.	House to House Inspection, No. of Houses	Inspection of Sanitary work in progress.	Factories & Workshops including Bakehouses.	Cowsheds.	Slaughterhouses and Meat Shops.
1008	770	140	44	44	312

SANITARY DEFECTS OF DWELLING HOUSES.

	(a) No of Houses		(b) Preliminary Notices.		Letters	(b) Inter-views without Notices		(a) Remedied.	(a) To be still dealt with.
Back to Back and single roomed houses...	10	...	...	...	1	...	...	1 closed	9
Back to earth ...	15	3	2	...	...	...	...	2	13
Defective roof gutters ...	4	2	...	...	...	...	...	2	2
Defective roofs ...	5	...	...	...	...	2	...	5	...
Overcrowding ...	3	...	...	...	...	3	...	3	...
Insufficient Ventilation ...	95	7	7	11	...	...	...	45	50
Defective floors ...	11	3	...	...	...	1	...	10	1
Dirty Houses ...	4	...	1	...	...	2	...	3	1
Damp ...	16	3	2	...	...	1	...	3	13
Insufficient Water Supply ...	10	...	...	...	...	...	...	...	10
Insufficient or defective closet and ashpit accommodation ...	140	39	5	...	...	...	...	W.C. 66 C. & A. 25 rebuilt —	49
Defective drainage ...	14	7	...	...	...	2	...	...	14
Keeping of Animals ...	...	...	...	...	...	...	...	...	2

(a)—Refers to number of individual houses.

(b)—Numbers refer to blocks of premises belonging to same person.

Yours obediently,

J. TRUEMAN, A.R.S.I.

TABLE I.—BOLLINGTON URBAN DISTRICT.

Vital Statistics of Whole District during 1911 and previous Years.

YEAR.	Population estimated to Middle of each year.	BIRTHS.			TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFERABLE DEATHS		NETT DEATHS BELONGING TO THE DISTRICT.			
		Un-corrected Number.	Nett.		Number	Rate.	of Non-residents registered in the District.	of Residents not registered in the District.	Under 1 yr. of age.		At all Ages.	
			Number	Rate.					Number	Rate per 1,000 nett Births.	Number	Rate
1906	5245	132			67	12.7		2	14	106	69	13
1907	5245	114			58	11		9	9	78	67	12.7
1908	5245	123			58	11		4	11	88	62	11.8
1909	5245	104			56	10.6		0	8	77	56	10.6
1910	5245	100			52	9.9		4	4	40	56	10.6
1911	5225	103	104	19.9	62	11.8	2	8	16	155	68	13

Area of District in acres (exclusive of area covered by water)	..	1291.	Total population at all ages			}	
			Number of inhabited houses				
			Average number of persons per house				
			5225	...	5225	}	
			1212	...	1212		
			4.3	...	4.3		
			At census of 1911.				

TABLE II.—BOLLINGTON URBAN DISTRICT.

Cases of Infectious Disease notified during the Year 1911.

NOTIFIABLE DISEASE.	NUMBER OF CASES NOTIFIED.								TOTAL CASES NOTIFIED IN EACH LOCALITY.			TOTAL CASES REMOVED TO HOSPITAL.
	At all Ages.	At Ages—Years.							East Ward.	Central Ward.	West Ward.	
		Under 1.	1 to 5	5 to 15	15 to 25	25 to 45	45 to 65	65 and upw'ds				
Small-pox ... ..	...	.	..	...	...	...	.	...	..	...	...	...
Cholera .. ...	...	...	...	...	...	...	...	.	...	...	...	...
Diphtheria (including Membranous croup)	2	...	..	..	...	2	...	..	...	1	1	1
Erysipelas	3	...	...	...	...	1	2	..	...	1	2	...
Scarlet fever	2	...	..	1	1	..	...	...	...	...	2	...
Typhus fever ... ..	...	...	...	...	...	...	..	...	...	...	...	...
Enteric fever .. ...	...	...	...	..	...	...	.	...	...	...	...	...
Relapsing fever .. ...	...	...	...	...	...	...	...	...	...	...	...	...
Continued fever .. ...	...	..	...	.	...	...	...	...	...	...	..	...
Puerperal fever .. ...	...	...	...	...	...	..	...	...	...	...	...	...
Plague ... ..	...	...	..	..	...	.	...	...	...	.	...	...
Phthisis (under Tubercu- losis Regulations 1908)	...	..	...	...	...	.	..	..	...	.	...	...
Phthisis (under Tubercu- losis Regulations 1911)	1	...	...	...	...	1	...	...	1	...	...	...
Others ... ..	...	...	...	..	...	...	...	...	...	..	...	...
Totals	8	..	...	1	1	4	2	...	1	2	5	1

Isolation Hospital—(Name and Situation)—Macclesfield Isolation.

Total
Available Beds 6.

Number of Diseases that
can be concurrently treated 4.

TABLE III.—BOLLINGTON URBAN DISTRICT.

Causes of, and ages at Death during the Year 1911.

CAUSES OF DEATH.					Nett deaths at the subjoined ages of "Residents" whether occurring within or without the District.								
					All ages	Under 1 Year	1 and under 2	2 and under 5	5 and under 15	15 and under 25	25 and under 45	45 and under 65	65 and upwards
All causes	{	Certified	...	...	...	16	6	3	...	3	6	15	19
		Uncertified	...	...	...	...	...	...	...	...	...	...
Measles					2	...	2	...	...	...	...	...	...
Phthisis (Pulmonary Tuberculosis)					2	...	...	...	...	2	...	...	...
Tuberculous Meningitis					2	...	2	...	...	...	...	...	...
Other Tuberculous Diseases					2	1	...	...	...	...	1	...	...
Rheumatic Fever					1	...	...	...	...	...	...	1	...
Cancer malignant disease					2	...	...	...	...	...	1	1	...
Bronchitis					5	2	...	...	...	...	...	...	3
Other diseases of Respiratory organs					1	...	...	...	...	...	...	1	...
Diarrhœa and Enteritis					5	5	...	...	...	...	...	...	...
Nephritis and Bright's Disease					1	...	...	...	...	...	...	1	...
Other accidents and diseases of Pregnancy and Parturition					1	...	...	...	...	...	1	...	...
Congenital Debility and Malformation, including Premature Birth					4	4	...	...	...	...	...	...	...
Violent Deaths, excluding Suicide					4	...	1	2	...	...	...	...	1
Suicide					1	...	...	...	...	...	1	...	...
Cardiac					8	...	...	...	...	1	1	2	4
Cerebral hæmorrhage					10	...	...	...	...	...	...	7	3
Other Defined Diseases					14	4	1	1	...	...	1	2	5
Diseases ill-defined or unknown					3	...	...	...	...	...	...	...	3
					68	16	6	3	...	3	6	15	19

TABLE IV.—BOLLINGTON URBAN DISTRICT.

INFANT MORTALITY.—Nett deaths from stated causes at various Ages under 1 Year of Age.

CAUSE OF DEATH.	Under 1 week.	1-2 weeks.	2-3 weeks.	3-4 weeks.	Total under 1 month.	1-3 months.	3-6 months.	6-9 months.	9-12 months.	Total Deaths under 1 year.
ALL CAUSES { Certified Uncertified	4	...	2	..	6	4	2	3	1	16
Small-pox ... ..	...	...	...	...	...	...	...	...	...	...
Chicken-pox ... ..	...	...	...	...	...	...	...	...	...	...
Measles ... ..	...	...	...	...	...	...	...	...	...	...
Scarlet fever ... ..	...	...	...	...	...	...	...	...	...	...
Diphtheria and Croup ... ..	...	...	...	...	...	...	...	...	...	...
Whooping-Cough ... ..	...	...	...	...	...	...	...	...	...	...
Diarrhœa ... ..	...	...	...	...	...	...	...	1	...	1
Enteritis ... ..	...	...	2	...	2	2	...	...	...	4
Tuberculous Meningitis ... ..	...	...	...	...	...	...	...	...	...	...
Abdominal Tuberculosis ... ..	...	...	...	...	...	...	1	..	...	1
Other Tuberculous Diseases ... ..	...	...	...	...	...	...	...	...	...	...
Congenital Malformations	1	...	...	...	1	...	...	...	...	1
Premature birth	1	...	...	...	1	1	...	1	...	3
Atrophy, Debility and Marasmus	1	...	...	...	1	...	1	1	...	3
Atelectasis... ..	...	...	...	...	...	...	...	...	...	...
Injury at birth ... ..	...	...	...	...	...	...	...	...	...	...
Erysipelas ... ..	...	...	...	...	...	...	...	...	...	...
Syphilis ... ..	...	...	...	...	...	...	...	...	...	...
Rickets ... ..	...	...	...	...	...	...	...	...	...	...
Meningitis (<i>not Tuberculous</i>) ... ..	...	...	...	...	...	...	...	...	...	...
Convulsions	1	...	...	...	1	...	...	...	...	1
Gastritis ... ..	...	...	...	...	...	...	...	...	...	...
Laryngitis ... ..	...	...	...	...	...	...	...	...	...	...
Bronchitis ... ..	...	...	...	...	...	1	...	...	1	2
Pneumonia (all forms) ... ..	...	...	...	...	...	...	...	...	...	...
Suffocation, overlying ... ..	...	...	...	...	...	...	...	...	...	...
Other causes ... ..	...	...	...	...	...	...	...	...	...	...
	4	...	2	...	6	4	2	3	1	16

<p> Nett Births in the year </p>	<p> { </p>	<p> legitimate ... 95 </p>	<p> Nett Deaths in the year of </p>	<p> { </p>	<p> legitimate infants .. 16 </p>
		<p> illegitimate ... 9 </p>			<p> illegitimate infants... 0 </p>

Annual Report of the Medical Officer of Health for the year 1911,

FOR THE

URBAN DISTRICT OF BOLLINGTON,

on the administration of the Factory and Workshop Act, 1901, in connection with
FACTORIES, WORKSHOPS, WORKPLACES AND HOMEWORK.

1.—INSPECTION OF FACTORIES, WORKSHOPS & WORKPLACES.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions
FACTORIES ... (Including Factory Laundries)	12	Nil.	
WORKSHOPS ... (Including Workshop Laundries)	32	1	1
WORKPLACES ... (Other than Outworkers' premises included in part 3 of this Report)	Nil.	Nil.	
TOTAL ...	44	1	

2.—DEFECTS FOUND in Factories, Workshops and Workplaces.

Particulars.	Number of Defects			Number of Prosecutions
	Found	Remedied	Referred to H.M. Inspector.	
<i>Nuisances under the Public Health Acts :—</i> Want of Cleanliness ... Want of Ventilation ... Overcrowding ... Want of drainage of floor ... Other Nuisances—Defective drains ... Sanitary accommodation { insufficient unsuitable or defective not separate for sexes	3	3	1	1
<i>Offences under the Factory and Workshop Act :—</i> Illegal occupation of underground bakehouse (s. 101) ... Breach of special sanitary requirements for bakehouses (ss. 97 to 100) ... Other offences ... (Excluding offences relating to outwork which are included in Part 3 of this Report)				
TOTAL ...	3	3		

3.—HOME WORK.—Nil.

4.—REGISTERED WORKSHOPS.

Workshops on the Register (s. 131) at the end of the year.	Number.
Bakehouses ...	14
Laundry ...	1
Wheelwright ...	1
Dressmaker ...	1
Clog Block Maker ...	1
Total number of workshops on Register ...	18

5.—OTHER MATTERS.

Class.	Number.
Matters notified to H.M. Inspector of Factories :— Failure to affix Abstract of the Factory and Workshop Act (s. 133) Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5) Other ...	1
Underground Bakehouses (s. 101) :— Certificates granted during the year In use at the end of year ...	1

